

Emerging Infectious Diseases: Understanding and Mitigating Global Risks

by newly evolved or re-emerging pathogens, zoonotic spillover events, antimicrobial resistance, environmental changes, or human behaviors. Examples include Ebola virus disease, Zika virus infection, Middle East respiratory syndrome (MERS), and COVID-19 [5].

2. **Globalization and Environmental Changes**: Several factors contribute to the emergence and spread of infectious diseases on a global scale. These include globalization, urbanization, deforestation, climate change, changes in land use, population growth, travel and trade, antimicrobial misuse, and inadequate healthcare infrastructure. These interconnected factors create environments conducive to the transmission of pathogens and increase the likelihood of disease outbreaks [6].

3. **Challenges in Detection and Response**: Detecting and responding to emerging infectious diseases is a complex task. It requires a combination of surveillance, laboratory testing, and international cooperation. Challenges include limited resources, inadequate healthcare infrastructure, and the potential for misinformation and stigma.